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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/708,373	02/26/2004	Tze-Hsiang Chao	SISP0011USA	2372
27765	7590	05/06/2005	EXAMINER	
NORTH AMERICA INTERNATIONAL PATENT OFFICE (NAIPC)			NGUYEN, LINH M	
P.O. BOX 506			ART UNIT	PAPER NUMBER
MERRIFIELD, VA 22116			2816	

DATE MAILED: 05/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/708,373	Applicant(s) CHAO, TZE-HSIANG	
	Examiner Linh M. Nguyen	Art Unit 2816	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9-13 is/are allowed.
- 6) ☒ Claim(s) 1-8, 14 and 15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Claims 1-15 are presented in the instant application according to the Applicant's filing on 02/26/2004.

Remarks

The examiner attempted to contact the attorney of record, Mr. Winston Hsu, to resolve the issues indicated in the current office action but was not able to with the listed telephone number.

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, in claim 1 and 14, the recitation "an integrator, responsive to the lock control signal, for generating the delay control signal" and "an integrator, responsive to the first and the second control signal, for generating the first delay control signal and the second delay control signal", respectively, must be shown or the feature(s) canceled from the claim(s). Fig. 1 shows only the control unit [107] (as claimed separately). No new matter should be entered.

Appropriate correction is required.

Specification

2. The disclosure is objected to because of the following informalities:

Paragraph [0030], lines 1 and 3, reference number "107" designates both the integrator and the control unit.

Appropriate correction is required.

Claim Objections/Minor Informalities

3. Claim 14 is objected to because of the following informalities:

Line 11, it is suggested that “second delay line” be changed to --second delay chain—to be consistent with “a first delay chain” in line 3.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-8 and 14-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 1, the recitation “*an integrator, responsive to the lock control signal, for generating the delay control signal, and a control unit for programming the delay cells.*” appears to be indefinite since Figure 1 of the claimed invention shows only the control unit not the integrator, but in the specification, paragraph [0030], lines 1-3, designates reference number “107” for both the integrator and the control unit. It is not clear if “107” including both the integrator and the control unit or just the control unit. Clarification/correction is required.

With respect to claim 14, similarly, the recitation “*an integrator, responsive to the lock control signal, for generating the first delay control signal and the second delay control signal; and a control unit for programming the delay cells.*” appears to be indefinite since Figure 1 of the claimed invention shows only the control unit not the integrator, but in the specification, paragraph [0030], lines 1-3, designates reference number “107” for both the integrator and the

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control unit. It is not clear if "107" including both the integrator and the control unit or just the control unit. Clarification/correction is required.

Claims 2-8 and 15 are also rejected under 35 U.S.C. 112, second paragraph because of their dependency on claims 1 and 14, respectively.

Allowable subject matter

6. Claims 9- 13 are allowed.

7. Claims 1-8 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this office action.

8. Claims 14 -15 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph and the objection set forth in this office action.

9. The following is a statement of reasons for the indication of allowable subject matter:

The closest prior art of record does not show or fairly suggest:

a) A multi-stage delay clock generator with a plurality of delay cells, in which each subsequent delay cell includes a smaller delay step than the current delay cell, in combination with the remaining claimed limitations, as called for in claim 1;

b) A method for generating a delay signal with a step of repeatedly dividing a subsequent delay cell into a plurality of smaller delay steps according to a size of the delay steps of the first delay cell, in which each subsequent delay cell comprises smaller and smaller delay steps, in combination with the remaining claimed limitations, as called for in claim 9; and

c) A multi-stage delay clock generator for generating a delay signal with a second delay line, in which each subsequent delay cell comprises a smaller delay step than the current delay cell; in combination with the remaining claimed limitations, as called for in claim 14.

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Citation of Relevant Prior Art

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Prior art Bell (U.S. Pub. No. 2003/0011414) discloses a delay locked loop that applies an amount of delay to an external clock signal to generate multiple delayed signals.

Prior art Antone et al. (U.S. Patent No. 6,437,616) discloses a delay locked loop with wide frequency range capability.

Inquiry

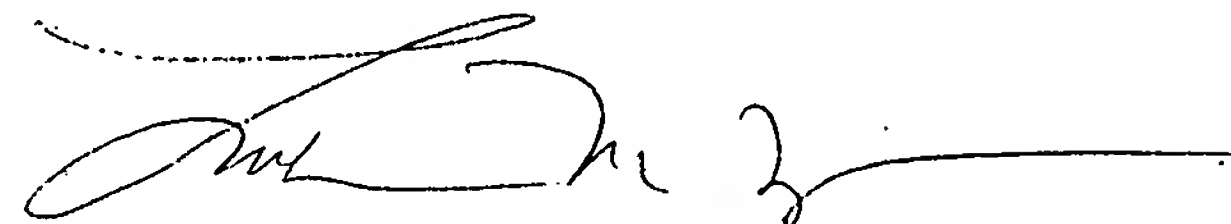
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linh M. Nguyen whose telephone number is (571) 272-1749.

The examiner can normally be reached on Alternate Mon, Tuesday - Friday from 7:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on (571) 272-1740. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LMN



**LINH MY NGUYEN
PRIMARY EXAMINER**